Abstract

MPEG 1 Audio data compression is based on subband coding.
A quantization is performed using a psychoacoustic model
which is adapted to the masking behaviour of the human
hearing. Each subband signal is quantized in such a way
that the quantization noise introduced by the coding will
not exceed the masking curve for that subband. In ISO/IEC
11172-3 two independent psychoacoustic models are defined.
The output from these psychoacoustic models is a set of
Signal-to-Masking Ratios, SMR_n, for every subband n. In
order to calculate the SMR_n for the psychoacoustic model 2
according to the invention a Fast Fourier Transformation
is performed with a length of L=1152 samples by
calculating k subtransformations over 2^N samples with
$k*2^N=L$ and fitting together the results of the k
subtransformations.